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| 10/045,927      | 01/09/2002  | Thomas B. Berg       | BEA920000017US1     | 3067             |

25253 7590 10/29/2003

IBM CORPORATION  
IP LAW DEPT, ED02-905  
15450 SW KOLL PARKWAY  
BEAVERTON, OR 97006-6063

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| EXAMINER |
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MOAZZAMI, NASSER G

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| ART UNIT | PAPER NUMBER |
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2187

DATE MAILED: 10/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/045,927

Applicant(s)

BERG ET AL.

Examiner

Nasser G Moazzami

Art Unit

2187

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 09 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

1. Claims 1-9 are presented for examination.

### ***Drawings***

2. The Formal Drawings submitted by applicant has been approved by the office draftsperson.

### ***Information Disclosure Statement***

3. The Information Disclosure submitted by applicant has been considered. Please see attached PTO-1449.

### ***Claim Objections***

4. Claim 3 is objected to because of the following informalities:  
Line 2, "accessable" should be changed to -accessible--.  
Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Luick et al., hereinafter Luick (U.S. Patent No. 6,088,769).

As for claims 1-2, 4-5, and 7-8, Luick discloses a method for maintaining cache coherence **[maintaining coherence between memories (column 1, line 9)]** in a multiprocessor system having a plurality of nodes **[nodes 101 (see Fig. 1)]** coupled by an interconnecting communications pathway **[global coherence unit 123 (see Fig. 1)]** which is capable of storing information regarding the location and state of data within the system **[global coherence table 129 indicate the most current copy of data and where it is reside (column 2, lines 50-54)]**, each node having at least one cache **[cache 115 and cache 117 (see Fig. 1)]**, a memory device local to the node **[memory 105 (see Fig. 1)]**, and at least one processor device **[processor 103 (see Fig. 1)]**, the processor device within each node being capable of accessing data from the local memory device, the local cache, or over the interconnecting communications pathway from a non-local memory device or a non-local cache **[communication between the nodes and transfer of data from one node to another (column 2, lines 46-48)]**, the method comprising: storing information regarding the state of data in said interconnecting pathway; checking said stored information to determine the location of the most current copy of a requested portion of data, in response to a request by a requesting node for the requested portion of data **[the global coherence table indicate**

the data is being shared and also where the most current copy of the data is resided (column 2, lines 50-54)]; retrieving said current copy of requested portion of data and directing said data to the requesting node [transferring the data from a first node to a second node (column 2, lines 58-59)]; checking said stored information to determine the location of the requested data [global coherence table preferably indicates the location of data (column 2, lines 52-55)]; and directing the system to send said requested data to the requesting node without going through the said interconnecting communications pathway node [transferring the data from a first node to a second node (column 2, lines 58-59)].

As for claim 3, Luick discloses that each node includes memory [local caches 115, 117, and local memory 105 (see Fig. 1)] accessible to it without communications through said communications pathway [checking local caches or local memory for the requested data (see Fig. 3, steps 301 through 309)], and memory accessible remotely by others of the nodes [sending the request to other nodes (see Fig. 3, steps 313 through 321)].

As for claim 6, Luick discloses a dispatch buffer [cache controller 113 (see Fig. 1)].

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,085,295 (Ekanadham et al.)

U.S. Patent No. 5,787,476 (Laudon et al.)


U.S. Patent No. 5,749,095 (Hagersten)

U.S. Patent No. 5,535,365 (Barriuso et al.)

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nasser G Moazzami whose telephone number is (703) 305-0017. The examiner can normally be reached on 7:00AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on (703) 308-1756. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

9. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 746-7240.

  
Nasser Moazzami  
10/24/2003